AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-5.　(Cancelled)

6.　　(Currently Amended) A method of measuring transverse sensitivity of a sensor for detecting acceleration comprising:

applying vibration acceleration to at least one sensor which is fixed, via a jig, on a uniaxial vibration generator for generating rotational vibration motion, and which detects acceleration based on said rotational vibration motion ~~with said vibration generator~~; [[and]]

calculating transverse sensitivity, ~~one of elements of a sensitivity matrix of said sensor,~~ from an output value of said sensor obtained by the application of the vibration acceleration, and from a measurement value of input acceleration to said sensor obtained by measuring the input acceleration with a measuring instrument independent of said sensor during the application; and

generating a sensitivity matrix based on the transverse sensitivity, the calculated transverse sensitivity being an element of the sensitivity matrix,

wherein the application is carried out in a state in which a coordinate axis of a coordinate system of a space defining the input acceleration to said sensor is aligned with a direction of a rotational axis of the vibration by adjusting said jig, the coordinate axis corresponding to a sensing axis of said sensor.

7.   (Currently Amended) A method of measuring transverse sensitivity of a sensor for detecting acceleration comprising:

applying vibration acceleration to a sensor which is fixed, via a jig, on a uniaxial vibration generator for generating rotational vibration motion, and which detects at least one of translational acceleration, rotational angular velocity and rotational angular acceleration [[with]] based on said rotational vibration motion said vibration generator; [[and]]

calculating transverse sensitivity, one of elements of a sensitivity matrix of said sensor, from an output value of said sensor obtained by the application of the vibration acceleration, and from a measurement value of input acceleration to said sensor obtained by measuring with a measuring instrument independent of said sensor during the application; and

generating a sensitivity matrix based on the transverse sensitivity, the calculated transverse sensitivity being an element of the sensitivity matrix,

wherein the application is carried out in a state in which coordinate axis of a three-axis Cartesian coordinate system of a space defining the input acceleration to said sensor is aligned with a direction of a rotational axis of the vibration by adjusting said jig, the coordinate axis corresponding to a sensing axis of said sensor.

8.   (Previously Presented) An acceleration measuring method comprising: when obtaining N components of acceleration by combining N sensors for detecting acceleration (N is an integer equal to or greater than two), improving detection accuracy of the acceleration by multiplying an output of each sensor by an inverse matrix of a

sensitivity matrix composed of main axis sensitivity and transverse sensitivity of the sensor, which are obtained by applying the method as defined in any one of claims 6 and 7 to the sensor.

9.   (Previously Presented) An acceleration measuring method comprising: when obtaining acceleration with a sensor for detecting at least biaxial acceleration, improving detection accuracy of the acceleration by multiplying an output of the sensor by an inverse matrix of a sensitivity matrix composed of main axis sensitivity and transverse sensitivity of the sensor, which are obtained by applying the method as defined in any one of claims 6 and 7 to the sensor.

10-15.   (Cancelled)

16.   (New) The method of measuring transverse sensitivity of a sensor as claimed in claim 6, wherein said sensor is placed on a table and the vibration acceleration is applied to said sensor by shaking the table in the direction of the rotational axis and said sensor is placed on a table and the vibration acceleration is applied to said sensor by shaking the table in the direction of the linear vibration axis.

17.   (New) The method of measuring transverse sensitivity of a sensor as claimed in claim 6, wherein the calculated transverse sensitivity is a complex number expressed as a function of angular frequency based on the input acceleration and the output value.

18.   (New) The method of measuring transverse sensitivity of a sensor as claimed in claim 17, wherein the transverse sensitivity is obtained by dividing the output value with the input acceleration.

19.   (New) The method of measuring transverse sensitivity of a sensor as claimed in claim 16, wherein the measuring instrument generates the measurement value by measuring a motion of the table caused by either rotational of linear shaking.

20.   (New) The method of measuring transverse sensitivity of a sensor as claimed in claim 7, wherein said sensor is placed on a table and the vibration acceleration is applied to said sensor by shaking the table in the direction of the rotational axis and said sensor is placed on a table and the vibration acceleration is applied to said sensor by shaking the table in the direction of the linear vibration axis.

21.   (New) The method of measuring transverse sensitivity of a sensor as claimed in claim 7, wherein the calculated transverse sensitivity is a complex number expressed as a function of angular frequency based on the input acceleration and the output value.

22.   (New) The method of measuring transverse sensitivity of a sensor as claimed in claim 21, wherein the function is obtained by dividing the of output value with the input acceleration.

23.   (New) The method of measuring transverse sensitivity of a sensor as claimed in claim 20, wherein the measuring instrument generates the measurement value by measuring a motion of the table caused by the shaking.

24.   (New) An apparatus for measuring transverse sensitivity of an acceleration detection sensor, the apparatus comprising:

a uniaxial vibration generator for generating either rotational vibration motion or linear vibration motion; and

a sensor fixed, via a jig, on the uniaxial vibration generator, the sensor detecting at least one of translational acceleration, rotational angular velocity and rotational angular acceleration based on using said rotational vibration motion to apply vibration acceleration to the sensor, the application being carried out in a state in which a coordinate axis of a coordinate system of a space defining the input acceleration to said sensor is aligned with a direction of a rotational axis of the vibration by adjusting said jig, the coordinate axis corresponding to a sensing axis of said sensor, wherein the apparatus:

calculates transverse sensitivity from an output value of said sensor obtained by the application of the vibration acceleration, and from a measurement value of input acceleration to said sensor obtained by measuring the input acceleration with a measuring instrument independent of said sensor during the application; and

generates a sensitivity matrix based on the transverse sensitivity, the calculated transverse sensitivity being an element of the sensitivity matrix.

25.   (New) The apparatus of claim 24, further comprising a table, on which said sensor is placed, wherein the vibration acceleration is applied to said sensor by shaking the table in the direction of the rotational axis and the vibration acceleration is applied to said sensor by shaking the table in the direction of the linear vibration axis.

26.   (New) The apparatus of claim 24, wherein the calculated transverse sensitivity is a complex number expressed as a function of angular frequency based on the input acceleration and the output value.

27.   (New) The apparatus of claim 26, wherein the function is obtained by dividing the output value with the input acceleration.

28.   (New) The apparatus of claim 25, wherein the measuring instrument generates the measurement value by measuring a motion of the table caused by the shaking.

29.   (New) The apparatus of claim 26, wherein the function is obtained by solving simultaneous linear equations.